03040207-030

(Sampit River)

General Description

Watershed 03040207-030 (formerly 03040207-040) is located in Georgetown County and consists primarily of the ***Sampit River*** and its tributaries. The watershed occupies 104,150 acres of the Lower Coastal Plain and Coastal Zone regions of South Carolina. The predominant soil types consist of an association of the Bladen-Wahee-Cape Fear-Eulonia series. The erodibility of the soil (K) averages 0.16; the slope of the terrain averages 2%, with a range of 0-6%. Land use/land cover in the watershed includes: 72.6% forested land, 12.2% scrub/shrub land, 4.3% forested wetland (swamp), 3.9% urban land, 3.7% nonforested wetland (marsh), 1.8% water, 1.3% agricultural land, and 0.2% barren land.

Bond Swamp (Boety Bay, Mackey Bay, Bind Bay, Canaan Bay, Ditch Branch, Canaan Branch, Summons Swamp) flows into Boggy Swamp (Cherryhill Swamp, Machine Branch, Britt Branch) which forms the Sampit River. The Sampit River accepts drainage from Spring Gully, Little Kilsock Bay, Ports Creek, Canaan Branch, Pennyroyal Creek (Big Kilsock Bay, Flat Bay, Turkey Creek), and Whites Creek before draining into Winyah Bay. There are a few ponds (totaling 819.8 acres), 128.7 stream miles, and 987.8 acres of estuarine areas in this watershed. The upper reaches of the watershed, including Boggy Swamp and its tributaries are classified FW* (dissolved oxygen not less than 4.0 mg/l and pH between 5.0 and 8/5). The Sampit River is classified FW*/SB dependent on the freshwater inflow from its neighboring rivers (the Pee Dee and Waccamaw Rivers), and the remaining streams in the watershed are classified FW.

Water Quality

Station #	Type	Class	Description
MD-075	P	SB/FW*	SAMPIT R. BETWEEN MOUTHS OF PORTS CK & PENNYROYAL CK
MD-076N	S	FW	TURKEY CREEK S-22-42 SW OF GEORGETOWN
MD-149	P	FW	WHITES CK 100 YDS UPSTREAM OF JUNCTION WITH SAMPIT RIVER
MD-077	P	SB/FW*	SAMPIT RIVER AT US 17
MD-073	P	SB/FW*	SAMPIT RIVER OPPOSITE AMERICAN CYANAMID CHEMICAL CO
MD-074	S	SB/FW*	SAMPIT RIVER AT CHANNEL MARKER #30

Sampit River - There are four monitoring sites along the Sampit River and recreational uses are fully supported at all sites. At the furthest upstream site ***(MD-075)***, aquatic life uses are partially supported due to dissolved oxygen excursions, compounded by a significant decreasing trend in dissolved oxygen and a significant increasing trend in turbidity. This is a tidally influenced blackwater system, characterized by naturally low dissolved oxygen concentrations; however, the decreasing trend in dissolved oxygen suggests that conditions are deteriorating for this parameter. Significant decreasing trends in five-day biochemical oxygen demand and total nitrogen concentration suggest improving conditions for these parameters.

Aquatic life uses are fully supported at the next site downstream ***(MD-077)***; however, there is a significant increasing trend in turbidity. There is a significant decreasing trend in pH. Significant decreasing trends in five-day biochemical oxygen demand and total nitrogen concentration suggest improving conditions for these parameters. Further downstream ***(MD-073)***, aquatic life uses are also fully supported; however, there is a significant decreasing trend in dissolved oxygen concentration and a very high concentration of zinc was measured in 1994. There is a significant decreasing trend in pH. Significant decreasing trends in five-day biochemical oxygen demand and total nitrogen concentration suggest improving conditions for these parameters. Aquatic life uses are fully supported at the furthest downstream site ***(MD-074)***.

Turkey Creek (MD-076N) - Aquatic life uses are fully supported; however, there is a significant increasing trend in five-day biochemical oxygen demand. There is a significant increasing trend in pH. This is a blackwater system, characterized by naturally low dissolved oxygen concentrations. Although dissolved oxygen excursions occurred, they were typical of values seen in blackwater systems and were considered natural, not standards violations. Recreational uses are partially supported due to fecal coliform bacteria excursions, compounded by a significant increasing trend in fecal coliform bacteria concentration.

Whites Creek (MD-149) - Aquatic life uses are not supported due to occurrences of zinc in excess of the aquatic life acute standards, including a very high concentration of zinc measured in 1995. In addition, there was a significant increasing trend in turbidity. This area is transitional between freshwater and saltwater and shows characteristics of both. It is a tidally influenced blackwater system, which are often characterized by naturally low dissolved oxygen concentrations. Although dissolved oxygen excursions occurred, they were typical of values seen in tidally influenced systems with significant marsh and swamp drainage and were considered natural, not standards violations. Significant decreasing trends in five-day biochemical oxygen demand and total nitrogen concentration suggest improving conditions for these parameters. Recreational uses are fully supported.

NPDES Program

Active NPDES Facilities

RECEIVING STREAM	***NPDES#***
FACILITY NAME	***TYPE***
PERMITTED FLOW @ PIPE (MGD)	***LIMITATION***
COMMENT	
SAMPIT RIVER	SC0000868
INTERNATIONAL PAPER/GEORGETOWN	MAJOR INDUSTRIAL
PIPE #: 001 FLOW: 27.4	WATER QUALITY
WQL FOR BOD5	
SAMPIT RIVER	SC0001431

GEORGETOWN STEEL CORP. — MAJOR INDUSTRIAL
PIPE #: 002 FLOW: M/R — EFFLUENT
PIPE #: 001 FLOW: 1.20 — WQL FOR BOD5

SAMPIT RIVER — SC0036111
3V, INC. — MAJOR INDUSTRIAL
PIPE #: 001 FLOW: 7.0 — WATER QUALITY
PIPE #: 001 FLOW: 9.7 (PHASE 2) — WATER QUALITY
PIPE #: 001 FLOW: 15.0 (PHASE 3) — WATER QUALITY
WQL FOR NH3N,BOD5

SAMPIT RIVER — SC0040029
CITY OF GEORGETOWN — MAJOR DOMESTIC
PIPE #: 001 FLOW: 4.5 — EFFLUENT
PIPE #: 001 FLOW: 12.0; PROPOSED — EFFLUENT

SAMPIT RIVER — SCG645013
CITY OF GEORGETOWN/WTP — MINOR INDUSTRIAL
PIPE #: 001 FLOW: 0.15 — WATER QUALITY
WQL FOR TRC

TURKEY CREEK — SC0028711
GCW&SD/HARMONY HILLS MHP — MINOR DOMESTIC
PIPE #: 001 FLOW: 0.0360 — WATER QUALITY
WQL FOR DO,NH3N,BOD5

TURKEY CREEK — SC0022471
S.C. PUBLIC SERV. AUTH./WINYAH BAY — MAJOR INDUSTRIAL
PIPE #: 001 FLOW: M/R — EFFLUENT

TURKEY CREEK — SC0042960
INTERNATIONAL PAPER/SANTEE — MINOR INDUSTRIAL
PIPE #: 001 FLOW: M/R — EFFLUENT

WHITES CREEK — SC0030732
CWS/WHITES CREEK LINCOLNSHIRE SD — MINOR DOMESTIC
PIPE #: 001 FLOW: 0.125 — WATER QUALITY
WQL FOR DO,TRC,NH3N,BOD5

LITTLE KILSOCK BAY — SC0039110
GCSD/SAMPIT ELEMENTARY SCHOOL — MINOR DOMESTIC
PIPE #: 001 FLOW: 0.015 — WATER QUALITY
WETLAND; WQL FOR DO,TRC,NH3N,BOD5

Nonpoint Source Management Program

Land Disposal Activities

Landfill Facilities

LANDFILL NAME / ***FACILITY TYPE***	***PERMIT #*** / ***STATUS***
INTERNATIONAL PAPER, INC. LANDFILL INDUSTRIAL	222435-1601 (IWP-190, IWP-073) ---------
AMERICAN CYANAMID INDUSTRIAL	IWP-070 ----------

Water Supply

Portions of this watershed fall within the Waccamaw Capacity Use Area and large groundwater uses must be reported (see Capacity Use Program p.23).

Growth Potential

There is a moderate to high potential for growth in this watershed, which contains the City of Georgetown and is adjacent to the Town of Andrews. Water and sewer infrastructure are located in and immediately around these municipalities, and also southeast of Georgetown which supports an industrial area. There are currently five industrial areas in the watershed, one south of Andrews and four located in or near the City of Georgetown. Based on the location of facilities and infrastructure required by many industries (a shipping port, rail lines, commercial air service, highway access, and water and sewer infrastructure), the eastern edge of the watershed has the potential for significant industrial growth. Outside these areas, the watershed is rural with agricultural uses and timberlands.